

Notice of Allowability

Application No.

10/506,492

Examiner

Rhonda S. Peace

Applicant(s)

USHIRO ET AL.

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to ^{amendment and} Applicant's remarks filed 9/25/2006.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

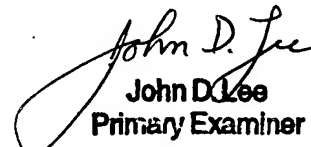
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


John D. Lee
Primary Examiner

DETAILED ACTION

Allowable Subject Matter

Claims 1-19 are allowed.

The following is an examiner's statement of reasons for allowance: The applicable prior art does not disclose, nor does it reasonably suggest an optically diffractive film formed on the end face of an optical fiber, wherein the film contains a DLC (diamond like carbon) material which has a diffraction grating included within the DLC material. While applicable art, such as those listed below, show a diffraction grating written within a DLC material, none of these applicable references are considered prior art, as their earliest filing date does not predate the earliest filing date of the present invention. In addition, prior art Cronk et al (US 6795636) discloses the use of a DLC material layer in a device containing an optical diffraction grating. However, in the case of Cronk et al, the diffraction grating is written through the DLC material layer and onto a layer beneath the DLC material, and does not show the diffraction grating actually written within the DLC material. The present invention is the first to show a DLC material having a grating written therein. This limitation is recited in each of the independent claims 1, 6, and 12, from which all other claims depend.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

Applicant's arguments, see pages 7-9, filed 9/25/2006, with respect to the rejection of claims 11 and 14 under 35 U.S.C. §112 and the rejection of claims 1-5, 10, 11, 13, and 14 under 35 U.S.C. §103(a) have been fully considered and are persuasive. The 35 U.S.C. §112 rejection of claims 11 and 14, as well as the 35 U.S.C. §103(a) rejection of claims 1-5, 10, 11, 13, and 14, has been withdrawn.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ushiro et al (US 2006/0146408) discloses a diffraction grating written within a DLC layer, where the DLC layer is the uppermost layer of a substrate. Ushiro et al (US 2005/0230687) discloses a light-emitting device having a diffraction grating written within a DLC layer that is placed upon a substrate. Shiozaki et al (US 7019904) discloses a diffraction grating element and production thereof, where the grating is written in a DLC layer. Shiozaki et al (US 2006/0139756) discloses a diffraction grating element and production thereof, where the grating is written in a DLC layer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rhonda S. Peace whose telephone number is (571) 272-8580. The examiner can normally be reached on M-F (8-5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272- 2344. The fax phone


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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Rhonda S. Peace
Examiner
Art Unit 2874



John D. Lee
Primary Examiner